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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,583	06/29/2004	Jan Webjorn	P/4447-3 PCT	5248

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EXAMINER

AMIRI, NAHID

ART UNIT PAPER NUMBER

3679

DATE MAILED: 01/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/500,583

Applicant(s)

WEBJORN, JAN

Examiner

Nahid Amiri

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>exhibit</u> .                          |

## **DETAILED ACTION**

### ***Specification***

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.

(b) CROSS-REFERENCE TO RELATED APPLICATIONS.

(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR  
DEVELOPMENT.

(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT

(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A  
COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program  
listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables  
having more than 50 pages of text are permitted to be submitted on compact  
discs.) or

REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a).  
"Microfiche Appendices" were accepted by the Office until March 1, 2001.)

(f) BACKGROUND OF THE INVENTION.

(1) Field of the Invention.

(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(g) BRIEF SUMMARY OF THE INVENTION.

(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(i) DETAILED DESCRIPTION OF THE INVENTION.

(j) CLAIM OR CLAIMS (commencing on a separate sheet).

(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the **"innermost abutment point"** of end surface of claim 7, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet"

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pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

Claims 1-13 are objected to because of the following informalities: claims 1-13, line 1, "Flanged" should change to --A flanged--. Claim 1, line 1, after "included" should add --a first flanged member--; and line 4, before "second" should add --a--. Claim 3, line 4, "with another" should change to --said second--. Claims 11-14, line 1, "joint" should change to --A joint--. Claim 11, lines 2 and 3, "which" should change to --said--; and line 4, "which" should change to --end--. Claim 6, line 4, "sur-face" should change to --surface--; and line 4, "which " should change to --said--. Claims 7, line 3, "cor-responding" should change to --corresponding--.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 10 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 10, lines 2-3, the phrases "the surface of the flange", and "flange member", it is unclear which "surface", "flange" or "flange member" applicant is referring to. Therefore, the examiner will examine the claim as best understood.

Claim 10 recites the limitation "the flange" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 14 recites the limitation "said part surfaces" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 14 recites the limitation "said part surfaces" in line 1. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Claims 1-7 and 9-13 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 2,940,779 Buono.

In regard to claim 1: Buono discloses a flanged member (14) (Figs. 1-3) intended to included as a first component in a flange comprising a first component (14) in a flanged joint having a first flanged end (E) with a first end surface (30) intended to be assembled together with a corresponding end surface (16) of a flanged end (E') (see attachment) on another, a second flanged member (12) in the flanged joint, the first end surface (30), in unstressed condition is slightly concave in the radial direction over at least a part of the extension thereof in the radial direction.

In regard to claim 2: Buono discloses (Figs. 1-3) wherein the first end surface (30) is concave over the entire extension thereof in the radial direction.

In regard to claim 3: Buono discloses (Figs. 1-3) wherein the first end surface (30) is concave in the radial direction over at least an area that will be subjected to deforming forces when the flanged member (14) is assembled together with another flanged member (14) as well as during use.

In regard to claim 4: Buono discloses (Figs. 1-3) wherein the first end surface (30) is concave in the radial direction over essentially that area which, during use, constitutes a contact surface against the corresponding end surface (16) of the second flanged member (12).

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In regard to claims 5 and 14: Buono discloses (Figs. 1-3) wherein the first end surface (30) comprises more than one concave part surface in the radial direction; and wherein the part surface has different radii of curvature.

In regard to claim 6: Buono discloses (Figs. 1-3) that further comprising an internal through axial opening (A) (see attachment), the first end surfaces (30) having an innermost abutment point against the corresponding end surface (16) of the second flanged member (12), which abutment point is situated farthest in the radial direction at the opening (A), the concavity of the first end surface (30) extending all the way in to the abutment point.

In regard to claim 7: Buono discloses (Figs. 1-3) wherein the first end surface (30) has an innermost abutment point against the corresponding end surface (16) of the second flanged member (12), which has an internal through axial opening (A), the innermost abutment point being situated farthest in the radial direction, at the opening (A), the concavity of the first end surface (30) extending all the way in to the abutment point.

In regard to claim 9: Buono discloses (Fig. 2) wherein the first end surface (30) is inclined in the radial direction out-wards and away from a conceived opposite end surface (16).

In regard to claim 10: Buono discloses (Fig. 1) wherein at least a part of a transition area (T) (see attachment), between the surface of the flange directed away from the end surface (30) and a part of the flanged member that is substantially parallel to a longitudinal axis of the member, is shaped as a substantially elliptical area.

In regard to claim 11: Buono discloses a Joint (Figs. 1-3) comprising two joint halves formed as two flanged members (12, 14) and included in a pressure equipment device, the members (12, 14) have at least one flanged end (E, E') each having an end surface (30, 16), and the flanged members (12, 14) are assembled together via the end surfaces (16, 30) of the flanged ends (E, E'), the end surfaces (16, 30) are facing each other, the end surface (30) of at least one of the flanged members (14) being slightly concave in a radial direction over at least a part of an extension thereof in the radial direction when the end surface is in an unstressed condition.

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In regard to claim 12: Buono discloses (Figs. 1-3) wherein both of the flanged members (12, 14) have a concave end surface.

In regard to claim 13: Buono discloses (Figs. 1-3) wherein the end surfaces (30, 16) facing each other are inclined in the radial direction outwards so that they, in radial cross-section, form an angle to each other, when they have been brought together but before assembly, which angle is such that a distance between the two end surfaces (30, 16) increases in the radial direction outwards, at least one of said inclined end surfaces being slightly concave.

In regard to claim 14: Bono discloses (Figs. 1-3) wherein said part surfaces have different radii of curvature.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buono.

In regard to claim 8: Buono discloses the claimed invention except for the conceived straight X that connects an innermost point of a first end surface in the radial direction, with an outermost point b thereof, in the radial direction, has a length Lx and the concavity of the end surface has a maximum depth Dk in relation to a conceived plane surface produced by said line X, which depth Dk is of the order of 0.01%-2% of Lx. It would have been an obvious matter of design choice to construct the concavity of end surface with Applicant's specific dimension since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).




***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The prior art of the record US Patent No. 5,938,246 Wallace et al.; US Patent NO. 5,851,033 Hunt et al; US Patent No. 5,230,540 Lewis et al.; and US Patent No. 4,183,562 Watkins et al.; are cited a flange joint with a pair of flanged member for a fluid piping system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nahid Amiri whose telephone number is (571) 272-8113. The examiner can normally be reached on 8:30-5:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571) 272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Nahid Amiri  
Examiner  
Art Unit 3679  
December 14, 2005

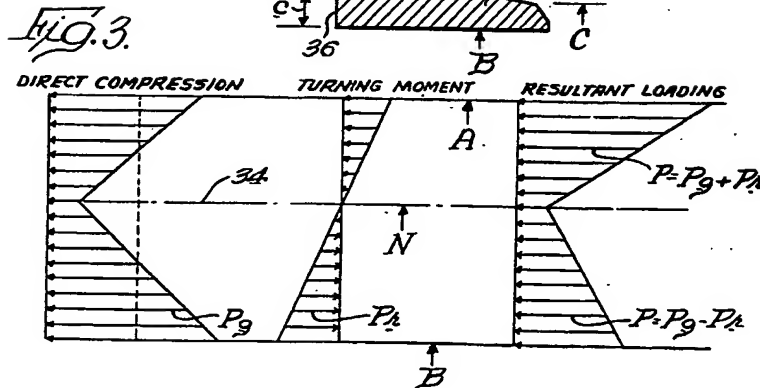
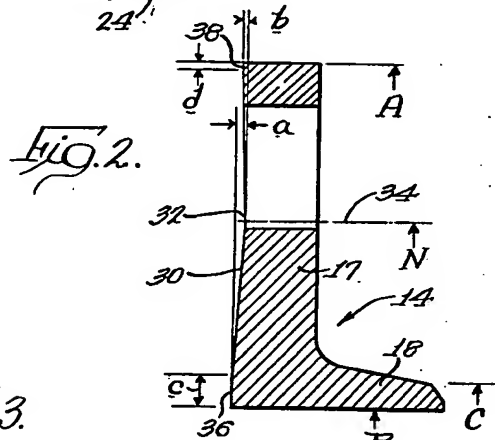
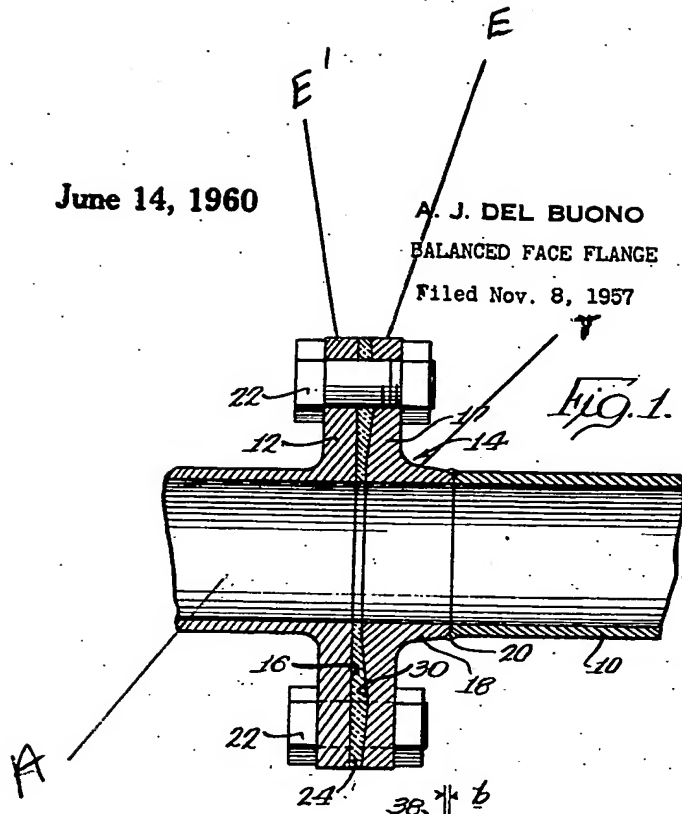


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June 14, 1960

A. J. DEL BUONO  
BALANCED FACE FLANGE  
Filed Nov. 8, 1957

2,940,779



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